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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
DEES, NIKKI H	

ART UNIT	PAPER NUMBER
1781	

MAIL DATE	DELIVERY MODE
07/28/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/517,804	ADACHI ET AL.	
	Examiner	Art Unit	
	Nikki H. Dees	1781	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 March 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 5, 2010, has been entered.

2. Claims 8-13 are currently pending in the application.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 8 claims an extract produced from tea leaves. The preamble of the claim states that the extract is to be an inhibitor for deterioration of citral smell or a citral-containing product.

6. Claims 9-11 further limit the inhibitor of claim 8. The inhibitor is in the preamble of claims 8-11, and does not change the composition of the extract required in the body of the claim.

7. It is unclear if Applicant intends to claim the extract in the body of claim 8, or if Applicant intends to claim citral-containing products comprising an extract. Claims 8-11 have been interpreted as being to both an extract, and a citral-containing product comprising an extract. Clarification is required.

8. Claims 8, 12, and 13 claim a "dipping" method for extracting the tea leaves. It is unclear how the dipping method is to be carried out. For purposes of examination, any treatment of tea leaves with solvent will be considered to meet the limitation of a dipping method.

9. Claim 12 claims a method of inhibiting the generation of a smell. But, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a method without any active, positive steps delimiting how this method is actually practiced. The claim states the inhibitor is added. However, it is unclear what, exactly, the inhibitor is to be added to.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin et al. (Lin, J.-K., Lin, C.-L., Liang, Y.-C., Lin-Shiau, S.-Y., Juan, I-M. 1998. Survey of Catechins, Gallic Acid, and Methylxanthines in Green, Oolong, Pu-erh, and Black Teas. J. Agric. Food Chem. Vol. 46, pp. 3635-3642).

12. Lin et al. teach extracts of semi-fermented (i.e. oolong) and fermented (i.e. black) tea leaves obtained by extracting 10 g leaves with 100 mL boiling water and steeping for 10 minutes (Preparation of Tea Water Extract, p. 3636).

13. The preamble to an inhibitor for the generation of deterioration smell does not affect the composition of the extract and is not given patentable weight in considering the composition of the extract. Dependent claims 9-11 further limit the preamble but do not change the composition of the extract. Therefore, claims 8-11 are anticipated by the teachings of Lin et al.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bank et al. (WO 98/58656) in view of Mai et al. (US 4,839,187).

16. Bank et al. teach a citral flavor deterioration inhibitor (or stabilizing agent) (abstract) in the form of a water-soluble plant extract (p. 5 lines 22-24). They also teach a storage stable food composition with a citrus flavor that includes this extract (claim 16).

17. Bank et al. add the plant extract inhibitor to their composition at a concentration ranging from about 10 ppm to 500 ppm (claim 15).

18. Bank et al. teach that their extract inhibits the formation of the citral oxidative degradation product *p*-methylacetophenone (p. 5 lines 1-3).

19. Bank et al. are silent as to the use of an extract from semi-fermented tea leaves or fermented tea leaves. They also do not speak specifically to the use of their composition in fragrances and cosmetics.

20. Mai et al. teach an aqueous tea extract that is used as an antioxidant (Abstract). They further state that their invention has antioxidant activity similar to that of products obtained from rosemary, while also having a less intense flavor (col. 1 lines 49-51). The tea extract is formed by aqueous extraction of tea leaves (Abstract). Mai et al. are silent as to the ratio of tea leaves to solvent for the extraction. However, it would have been obvious to vary the ratio of tea leaves to solvent in order to vary the concentration of compounds in the extract. The strength of the extract would vary accordingly and could be easily adjusted by one of ordinary skill.

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to try an extract from tea known to be an effective antioxidant, as taught by Mai et al., for the rosemary extract of Bank et al. in order to provide a citral containing product protected from flavor deterioration. As both the product of Bank et al. and the product of Mai et al. were known in the prior art to be effective for the same purpose (as antioxidants), one of ordinary skill would have found it obvious to utilize a known antioxidant with a less intense flavor where an antioxidant derived from rosemary was previously utilized. This would not have required undue experimentation, and there would have been a reasonable expectation that the composition of Mai et al. would have functioned effectively to inhibit the flavor deterioration as taught by Bank et al.

22. Regarding claim 11, one of ordinary skill in the art would have found it obvious to utilize known antioxidant to compositions wherein antioxidative protection is desired. As the combination of Bank in view of Mai is suitable for addition to foodstuffs, one of ordinary skill would have had found it obvious to incorporate it in compositions including fragrances and cosmetics that may come in contact with skin to minimize the possibility of adverse effects on the user of the fragrance or cosmetic.

23. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bank et al. (WO 98/58656) in view of Hara (4,673,530).

24. Bank et al. teach a citral flavor deterioration inhibitor (or stabilizing agent) (abstract) in the form of a water-soluble plant extract (p. 5 lines 22-24). They also teach

a storage stable food composition with a citrus flavor that includes this extract (claim 16).

25. Bank et al. add the plant extract inhibitor to their composition at a concentration ranging from about 10 ppm to 500 ppm (claim 15).

26. Bank et al. teach that their extract inhibits the formation of the citral degradation product *p*-methylacetophenone (claim 24).

27. Bank et al. are silent as to the use of an extract from semi-fermented tea leaves or fermented tea leaves. They also do not speak specifically to the use of their composition in fragrances and cosmetics.

28. Hara teaches an aqueous tea extract that is used as an antioxidant (Abstract; col. 1 lines 61-63). The composition is taught for use in foodstuffs, as well as in cosmetics (col. 2 lines 59-64). The tea extract is produced by extracting the tea leaves with hot water. Example 2 utilizes 100 g tea leaves and 1000 mL aqueous ethanol for extraction.

29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted an extract from tea known to be an effective antioxidant, as taught by Hara, for the rosemary extract of Bank et al. in order to provide a citral containing product protected from flavor deterioration. As both the product of Bank et al. and the product of Hara were known in the prior art to be effective for the same purpose (as antioxidants), one of ordinary skill would have had a reasonable expectation the extract of Hara would have functioned effectively as an antioxidant to inhibit citral flavor degradation in the invention of Bank et al. Substituting a known

ingredient for a known alternative ingredient which performs the same function would have been obvious to one skilled in the art. One skilled in the art would have been motivated to substitute the tea extract for the rosemary extract of Bank et al. when desiring a less intense flavor. Rosemary extracts are known in the art to have an intense flavor as shown in the Mai reference above.

Response to Amendment

30. The declaration under 37 CFR 1.132 filed March 5, 2010, is insufficient to overcome the rejection of claims 8-13 based upon Bank in view of Mai or Hara as set forth in the last Office action because: the showings are not commensurate in scope with the claims.

31. The specific examples in the Declaration teach concentrations of the tea extract as an antioxidant up to 10 ppm. This extract is made by first extracting the tea leaves, removing the solids, and then evaporating the solvent to provide a solid sample. The solid sample is subsequently diluted before being used in measuring radical scavenging activity. The instant claims are to adding the extract in an amount ranging from about 1-500 ppm, a range much greater than taught in the declaration. Further, there is no claim to the subsequent concentration and dilution steps of the extract. Therefore, the showings are not commensurate in scope with the claims.

32. Further, the showings compare the instant invention with the applied prior art of Bank. However, the rejections previously presented were over Bank in view of Mai or

Hara. Both Mai and Hara teach tea extracts as antioxidants. Further, the prior art provides motivation to replace the rosmarinic extracts of Bank with tea extracts given the undesirable flavors that may be imparted by including rosmarinic extracts in foodstuffs. Therefore, a showing that tea extracts do not function as effectively as antioxidants as rosmarinic acid is not sufficient to overcome the previously presented rejections.

Response to Arguments

33. Applicant's arguments filed March 5, 2010, have been fully considered but they are not persuasive.

34. Applicant argues that it would not have been obvious to replace the extract of rosemary with another antioxidant as all antioxidants do not protect equally against the oxidation of citral (Remarks, pp. 6-7).

35. As noted previously, Mai et al. specifically teach their product for use as an antioxidant where rosemary extracts are known to be used in order to avoid the strong flavor of rosemary. Therefore, one of ordinary skill would have found it obvious to utilize the tea-derived extract of Mai et al. where a rosmarinic antioxidant has been taught to be used. Obviousness does not require absolute predictability of success. Based on the teachings of Mai et al., one of ordinary skill would have had a reasonable

expectation that a tea extract would have functioned effectively as an antioxidant where a rosemary extract was known to be used previously. Further, one of ordinary skill would have been able to adjust the amount of extract in order to provide oxidative protection comparable to the rosmarinic extract being replaced. There is no requirement that the rosmarinic and tea antioxidants have 1:1 effectiveness.

36. Applicant's arguments directed at the newly presented limitations are addressed in the rejections *supra* (Remarks, pp. 6-7).

37. It is noted that the passage of Mai provided by Applicant (p. 7) teaches aqueous extraction of black tea, which renders obvious Applicant's newly presented limitation to a tea extract obtained by dipping or heating under reflux with a solvent selected from water, ethanol, or a mixture thereof.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikki H. Dees whose telephone number is (571) 270-3435. The examiner can normally be reached on Monday-Friday 7:30-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. H. D./

Nikki H. Dees
Examiner
Art Unit 1781

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